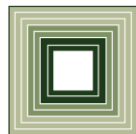


Transportation Primer

Joint Appropriations Committee on Transportation

February 22, 2017

Amna Cameron
Fiscal Research Division



FISCAL RESEARCH DIVISION
A Staff Agency of the North Carolina General Assembly

Agenda

- Background
- Transportation Revenues
- Transportation Spending
 - Highway Fund
 - Highway Trust Fund
- Items for Consideration

Background

North Carolina's State-Owned Highway System is:

- Large – 79,000 miles, second largest in the country
 - Texas is number one, by a few hundred miles
 - North Carolina secondary roads are state-owned
- Centralized – All dollars flow to Raleigh
 - Highway Fund transportation project decisions made by Board of Transportation (G.S. 143B-350) and Secretary (S.L. 2012-84)
 - Highway Trust Fund project decisions made through STI prioritization process

Background: State Owned Roads

State	Road Miles Owned by State Agency	Total Road Miles	Percent Owned by State Agency
Florida	12,116	122,659	10%
Georgia	17,949	128,134	14%
North Carolina	79,559	106,334	75%
South Carolina	41,359	76,250	54%
Tennessee	13,878	95,637	15%
Texas	80,423	313,596	26%
Virginia	58,648	75,061	78%
U.S. Total	780,122	4,154,727	19%

Source: FHWA, Highway Statistics 2015 (December 2016)

- Greater share than Florida, Georgia, or the nation as a whole.
- Local roads usually owned and controlled by local jurisdictions.

Background: History

1915

- First full fledged State Highway Commission established
 - Provided road building assistance to counties

1921-1929

- NCGA authorizes takeover of 5,500 miles of county roads
- Motor Fuel Tax raised to 5 cents per gallon (equivalent to 63 cents per gallon today)
- \$115 million in highway bonds issued
- North Carolina is the “Good Roads State”

Background: History

1931

- During the Depression the state assumes responsibility for county roads, giving state responsibility for all roads except city streets.

1951

- Powell Bill
 - State takes over city streets which are part of the state highway system
 - Provided ½ cent per gallon from the motor fuel tax to cities for other city streets; allocated based on statutory formula.

Background: History

1980's

- Transportation infrastructure and funding mechanisms prove inadequate for the state's growth.
- Highway Study Commission recommends a multibillion dollar highway construction program.

1989

Creation of Highway Trust Fund (HTF)

- Goals are:
 - Completion of the Intrastate Highway System, a 3600 mile network of four-lane highways.
 - Construction of seven urban loops.
 - Pave 10,000 miles of state-maintained dirt roads.
 - Increase Powell Bill funding.

Background: History

2002

- North Carolina Turnpike Authority created as an independent agency to examine the feasibility of tolling roads. The original projects were defined in Statute in 2005. Turnpike moved under DOT in 2009.

2007

- S.L. 2007-428 (SB 1513) Counties authorized to participate in the cost of rights-of-way, construction, reconstruction, improvement, or maintenance of roads on the State Highway System under agreement with the Department of Transportation.

Background: History

2013

Strategic Transportation Investments Act

- S.L. 2013-183 (HB 817) eliminated the Equity Formula put in place in original 1989 Highway Trust Fund law.
- Funds are distributed:
 - 40% Statewide (100% data driven)
 - 30% Regional – Distributed by population (70% data driven/30% local input)
 - 30% Division – Distributed equally across 14 Highway Divisions (50% data driven/50% local input)

FY2017 Flow of Funds (millions)

Highway Fund \$2,049

Motor Fuels Tax \$1,266
Registrations \$544
Licenses \$163
Other \$76

\$1,730
Maintenance \$1,051
Bridge Preservation \$242
Construction \$45
Powell Bill \$148
Administration \$124
Intermodal \$229
DMV \$125
Capital Improvements \$7

71% ← → 29%

Transfers: \$61	
Ports	\$35
Other GF Agencies	\$26

Public Transportation	\$92
Rail	\$37
Ferry	\$51
Aviation	\$48
Bike/Pedestrian	\$1

Highway Trust Fund \$1,370

Motor Fuels Tax \$517
Highway Use Tax \$707
Title Fees & Other \$146

\$1,370
Strategic Transportation Investments \$1,226
Debt Service: GO Bonds \$61 NCTA \$49
Admin./Other \$35

Federal Aid \$1,258

FHWA \$998
Grants/ARRA \$171

Strategic Transportation Investments \$1,034
STI – NCTA \$6
STI – Bike \$1
Rail \$50
Airports \$20
Transit \$35
GARVEE ¹ \$99
GHSP ² \$14

Other \$109

Civil Penalties \$28
DMV Tag & Tax \$22
Interest \$12
NCTA Tolling \$43
Ferry Tolling \$5

OSBM - Civil Penalty & Forfeiture Fund \$28
DMV Tag & Tax \$22
NCTA Debt Service & Other \$54
Ferry System Capital Improvements \$5

Total STI = \$2,267

¹ Includes federal aid and GARVEE proceeds for NCTA projects

² Governor's Highway Safety Program

FY 2015-17 Legislative Recap

- Maintenance Funding Increased, Consolidated
- Empowered Highway Division Engineer
- New Ports Funding
- Privatization and outsourcing increased
- DOT REPORT Program
- Additional Tolling Authority
- Ferry Capital Budget
- Additional Dredging Funds

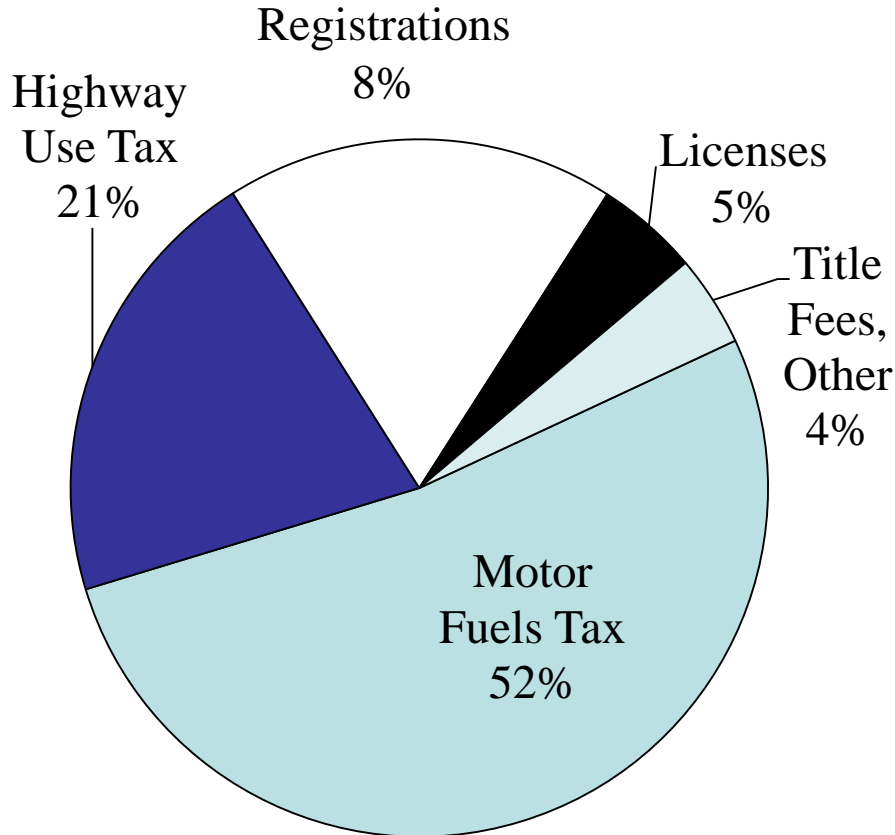
Revenue Changes

- S.L. 2015-2
 - Stabilized Motor Fuels Tax Formula
 - Changed Distribution Formula
- Budget Changes
 - DMV Fee Increase
 - DMV Inflationary Factor
 - HUT changes

Transportation Revenues

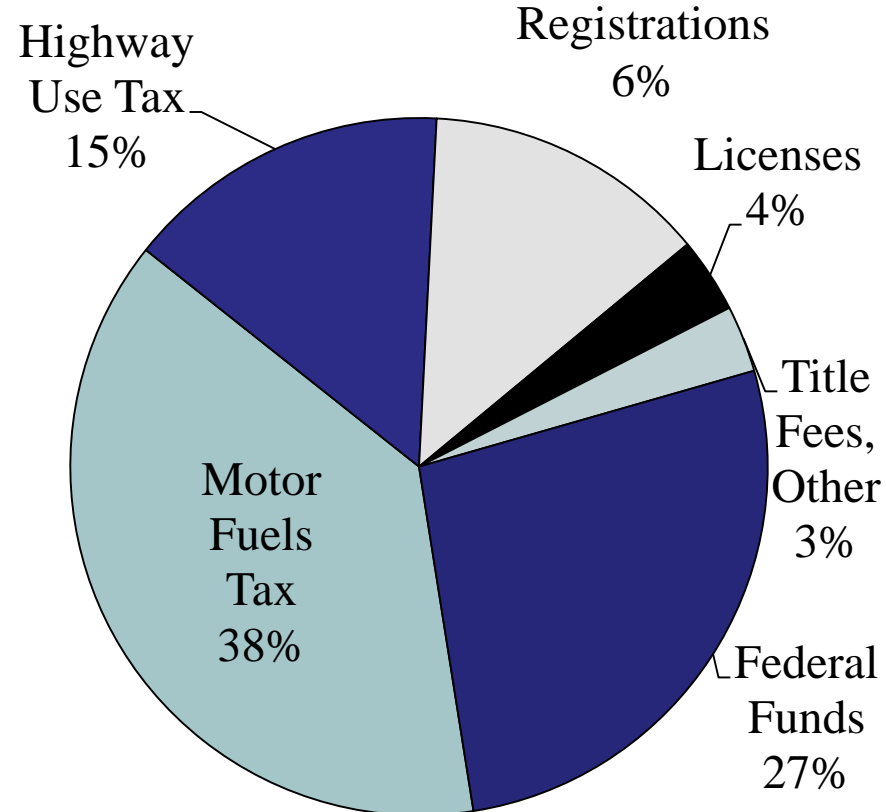
FY 2017

State Revenues



\$3.41 billion

Total Revenues



\$4.67 billion

Transportation Revenues: Current vs. Forecasted

- Preliminary Consensus Forecast
- Forecast will be finalized in April 2017 and any necessary changes will be incorporated in the Final Budget.

	Certified FY 2017	Forecasted FY 2018	Forecasted FY 2019
Highway Fund	\$2,048,690,000	\$2,153,600,000	\$2,182,800,000
Highway Trust Fund	\$1,371,280,000	\$1,517,400,000	\$1,542,800,000
Average Motor Fuels Tax Rate	34.0 cents per gallon	34.7 cents per gallon	35.6 cents per gallon

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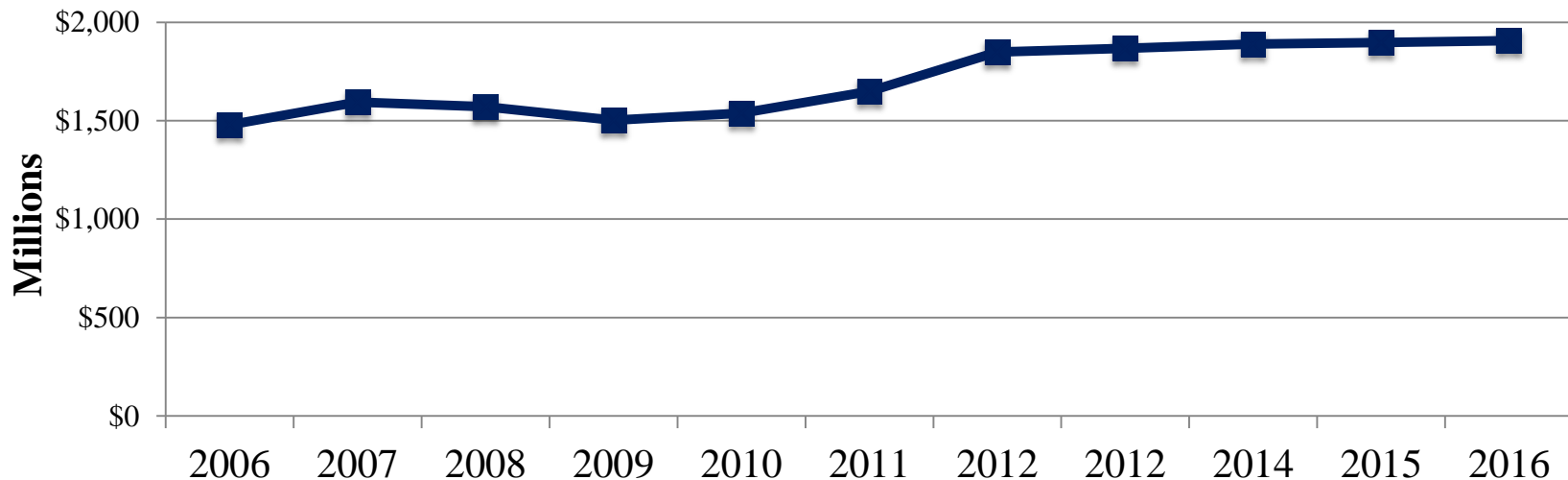
² Governor's Highway Safety Program

Transportation Revenues:

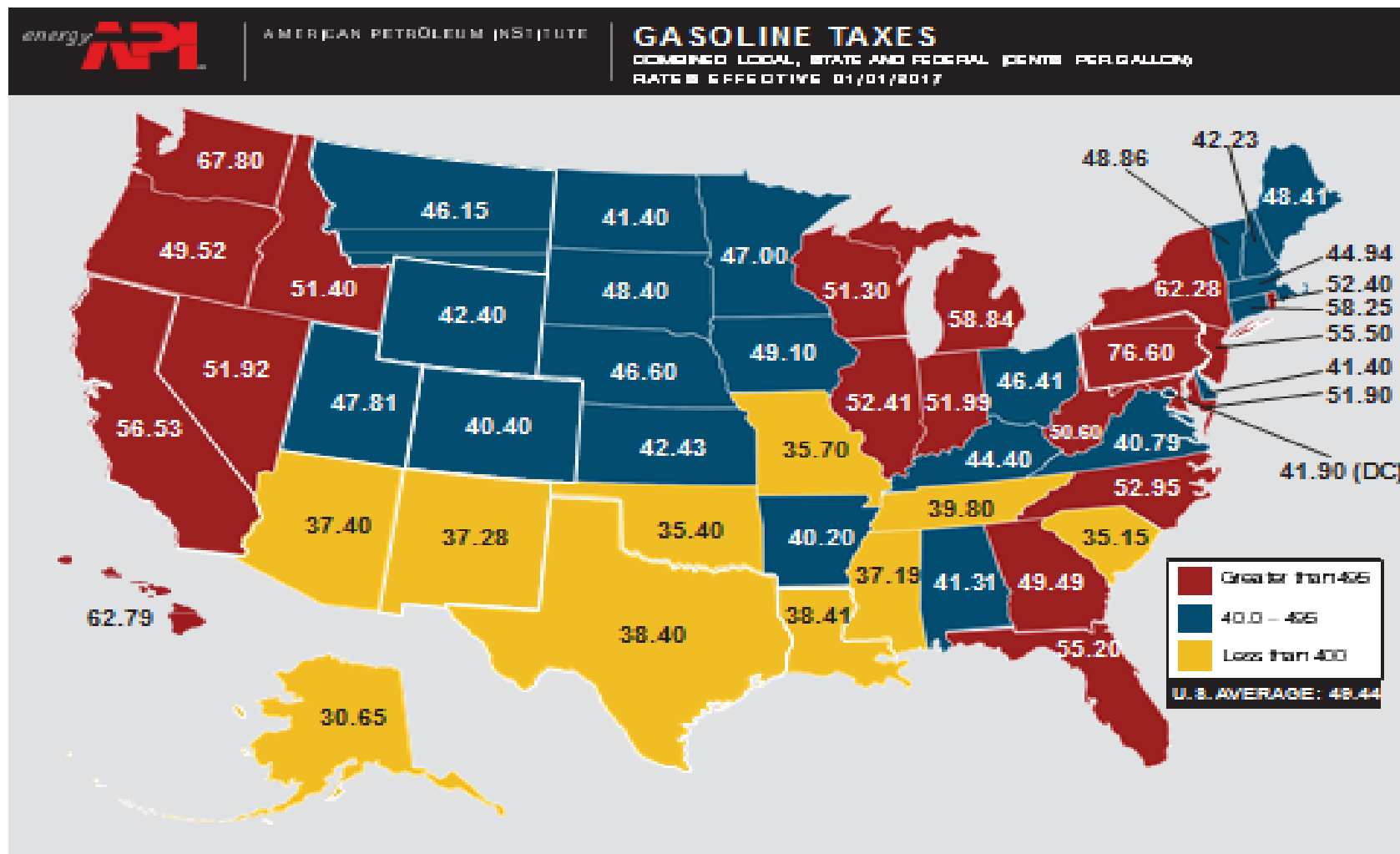
Motor Fuel Taxes

- Rate is 34.3 cents per gallon (cpg) through January 1, 2018.
- 75%: % Population Change: 25%: CPI-U: Energy
- One cent equals \approx \$50 million in tax revenues.
- Consumption will decrease! CAFE standards, greater fuel efficient vehicles, electric vehicles

Motor Fuel Tax Collections, FY2006-2016

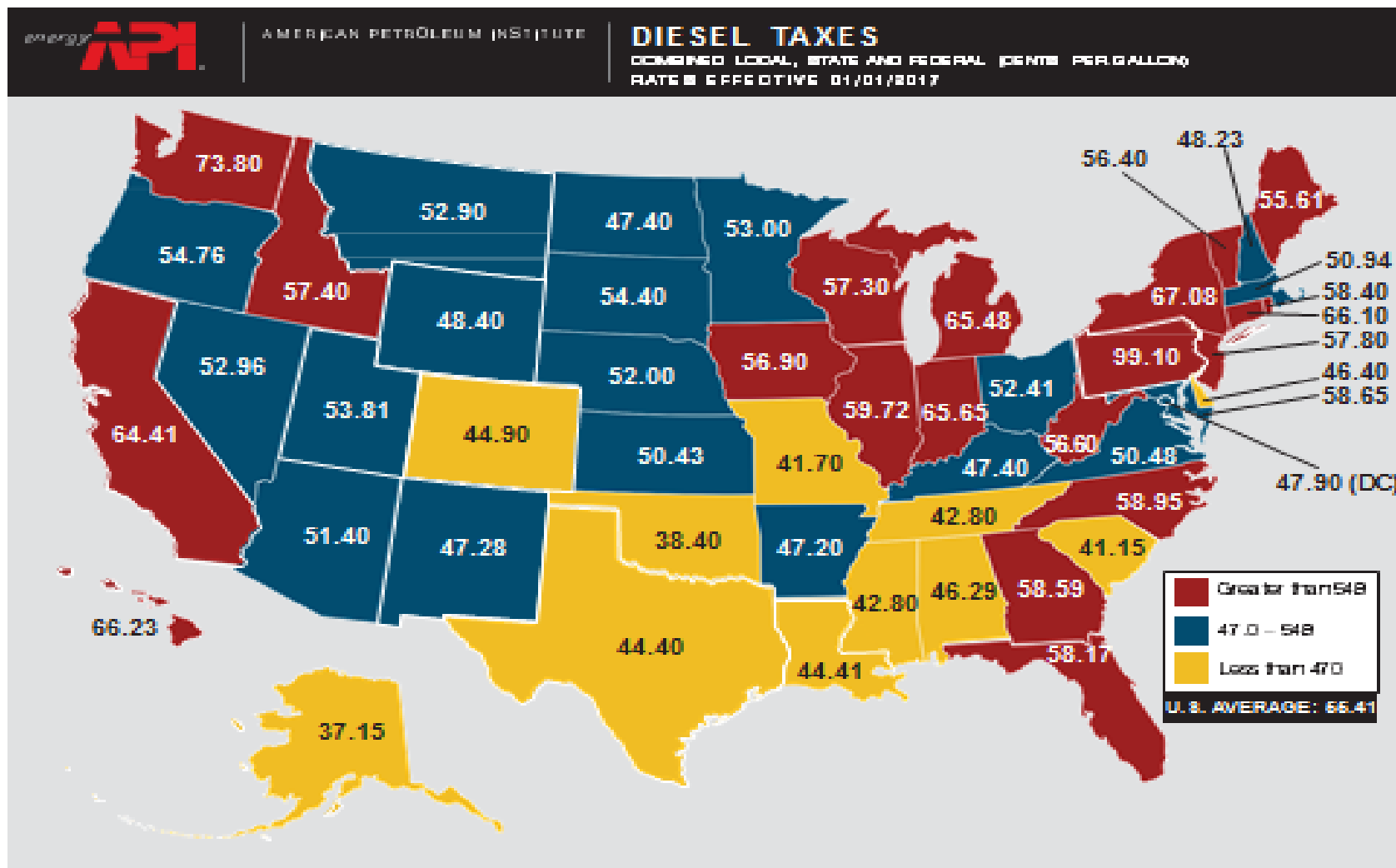


Gasoline Taxes



Disclaimer: This report is posted for informational purposes only and should not be relied upon or used for compliance purposes.

Diesel Taxes



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Future of Motor Fuel Revenues

Millennials

Inflation

Hybrids

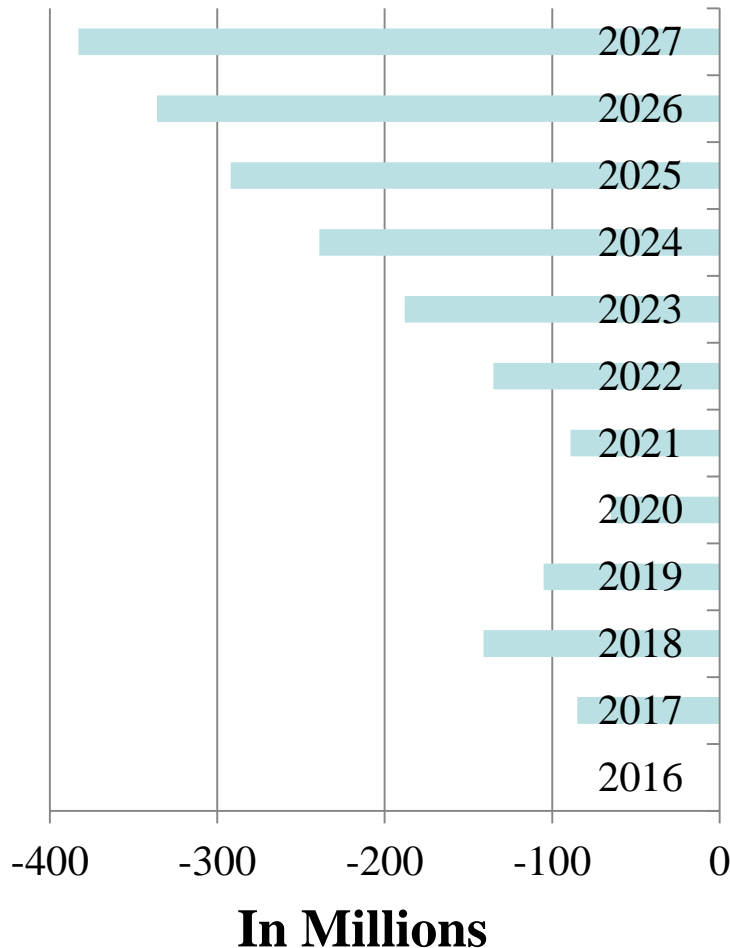
Consumption

Electrics

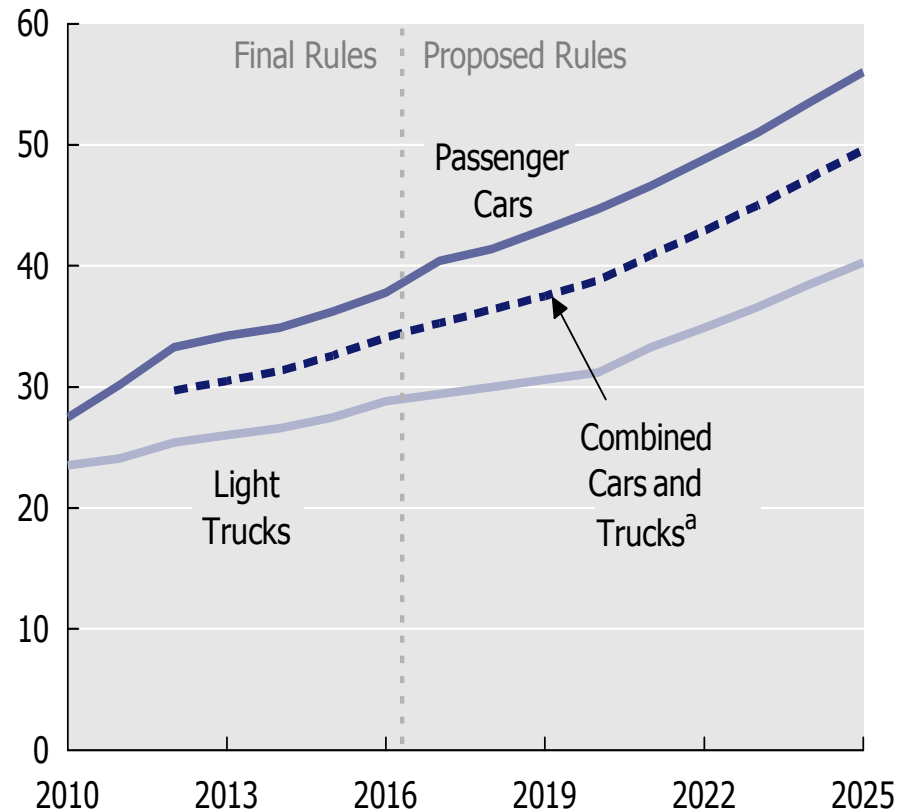
Fuel Economy

Future of Motor Fuel Revenues

Gallons of Forecast MF Consumed Compared to 2016



Estimated Average Fuel Economy of Light-Duty Vehicles Under CAFÉ Standards, 2010-2015
(Miles per gallon)



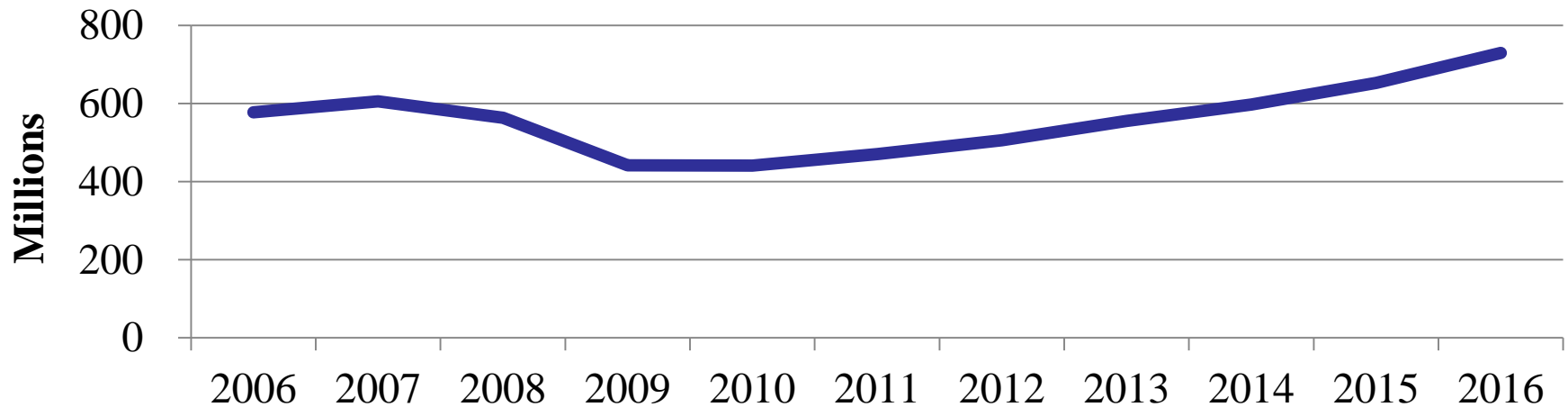
Sources: Congressional Budget Office based on data from FHWA

Transportation Revenues:

Highway Use Tax

- Highway Use Tax is 3% of vehicle price, net of trade.
- North Carolina tax is lower than Georgia, Virginia, and South Carolina.
- Economic recovery showing in car sales. Further increases expected.

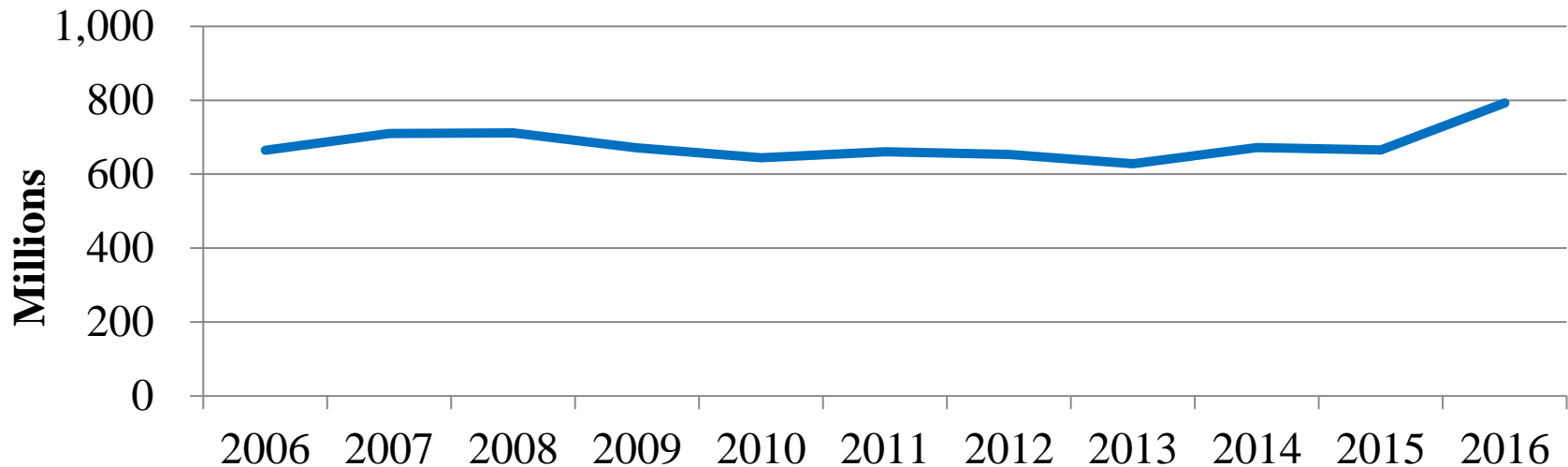
Highway Use Tax Collections, FY2006-2016



Transportation Revenues: Licenses and Fees

- Driver licenses, vehicle registration fees, truck licenses, titles...
- Generally driven by demographics.
- General Assembly increased these fees by about 20% in 2005 and by 30% in 2015.

DMV Fee Collections, FY 2006-2016



Transportation Revenues: Federal Aid

- \$1.25 Billion in FY 2017
- FAST Act - \$305 Billion over FY 2016-2020
- NC receives 2.66% of federal apportionment plus additional discretionary funds (TIFIA, Emergency Funds)

North Carolina Apportionments Under FAST Act

Est. <u>FY 2016</u>	Est. <u>FY 2017</u>	Est. <u>FY 2018</u>	Est. <u>FY 2019</u>	Est. <u>FY 2020</u>
\$1,057,922,052	\$1,079,768,287	\$1,103,103,510	\$1,128,001,186	\$1,155,016,278

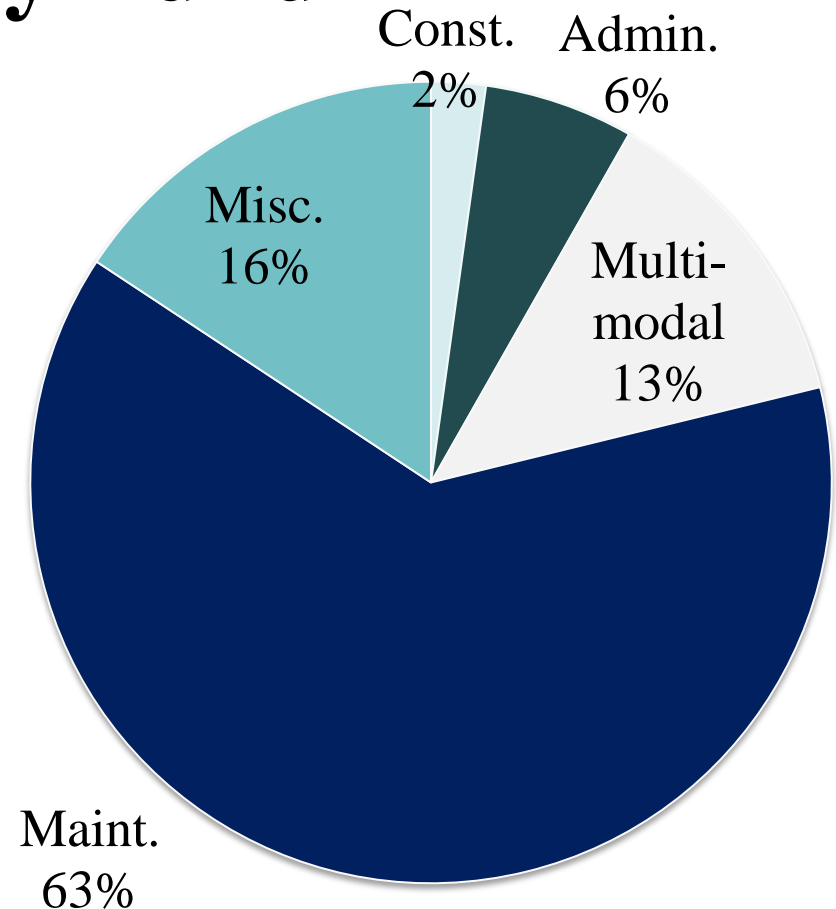
- Donor vs. Donee
- Federal Funding Stability

Transportation Revenues: Toll Projects

Name	Total Cost	Years Tolled	Annual Gap Funding	Issues
Triangle Expressway	\$1 billion	29	\$25 million (FY 2009)	Opened in Dec 2011= \$36.3 million in revenues in FY2016
Monroe Expressway	\$731 million \$577 million: Revenue bonds \$166 million: TIFIA \$22 million: STIP	30	\$24 million (FY 2011)	Open to traffic: November 2018
I-77	\$655 million (\$88 million State contribution + DRAM)	50		1 st Segment Open to traffic: Feb. 2018 Public Private Partnership: (DBFOM) Dynamic Pricing

FY 2017 Transportation Spending: Highway Fund

- Maintenance and Operations
- Multi-Modal: 5 Non-highway divisions, Ports, GTP
- Misc.: DMV, Aid to Municipalities, Transfers



\$2.05 billion

Transportation Spending: (Highway Fund) Maintenance

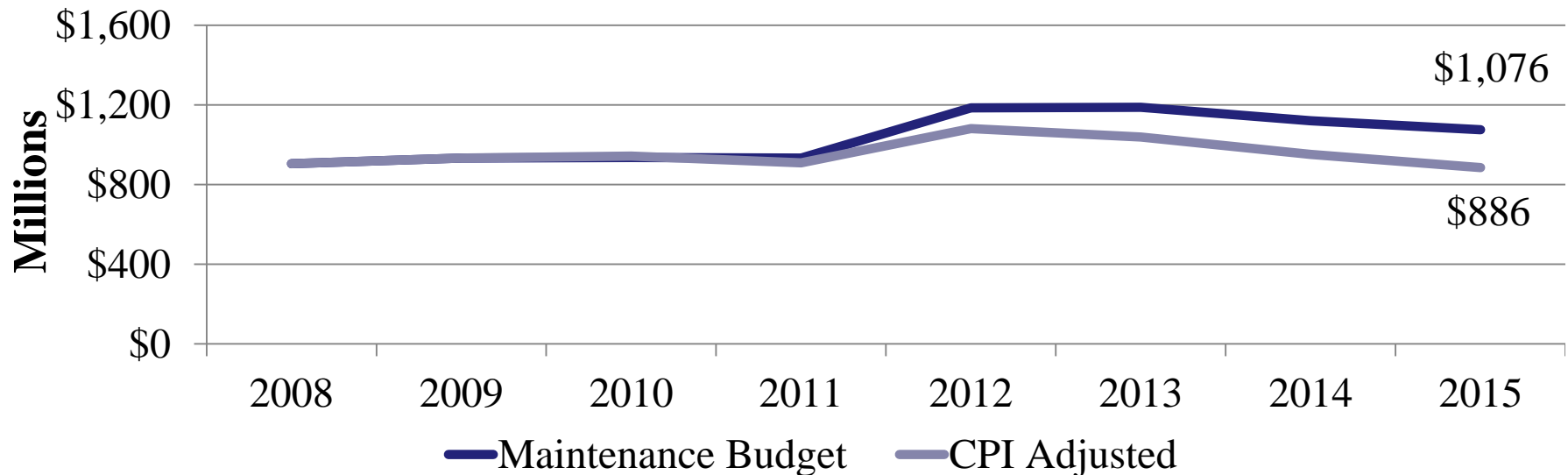
❖ General Maintenance
(\$468m)

❖ Contract Resurfacing
(\$498m)

❖ Pavement Preservation
(\$85m)

❖ Bridge Program (\$242m)

FY 2008-2015 Maintenance Budget w/ Inflation Adjustment



Transportation Spending:

Secondary Roads

Paved

- Primary: 14,062 miles
 - STI - All Tiers
- Secondary: 64,522 miles
 - STI - Division Tier
- \$467 M
- 95% of secondary system is paved

Unpaved

- 3,331 miles unpaved:
 - 1,359 eligible
 - 1,971 on hold
- \$12 M
- 2 year change:
 - 81 fewer miles are unpaved

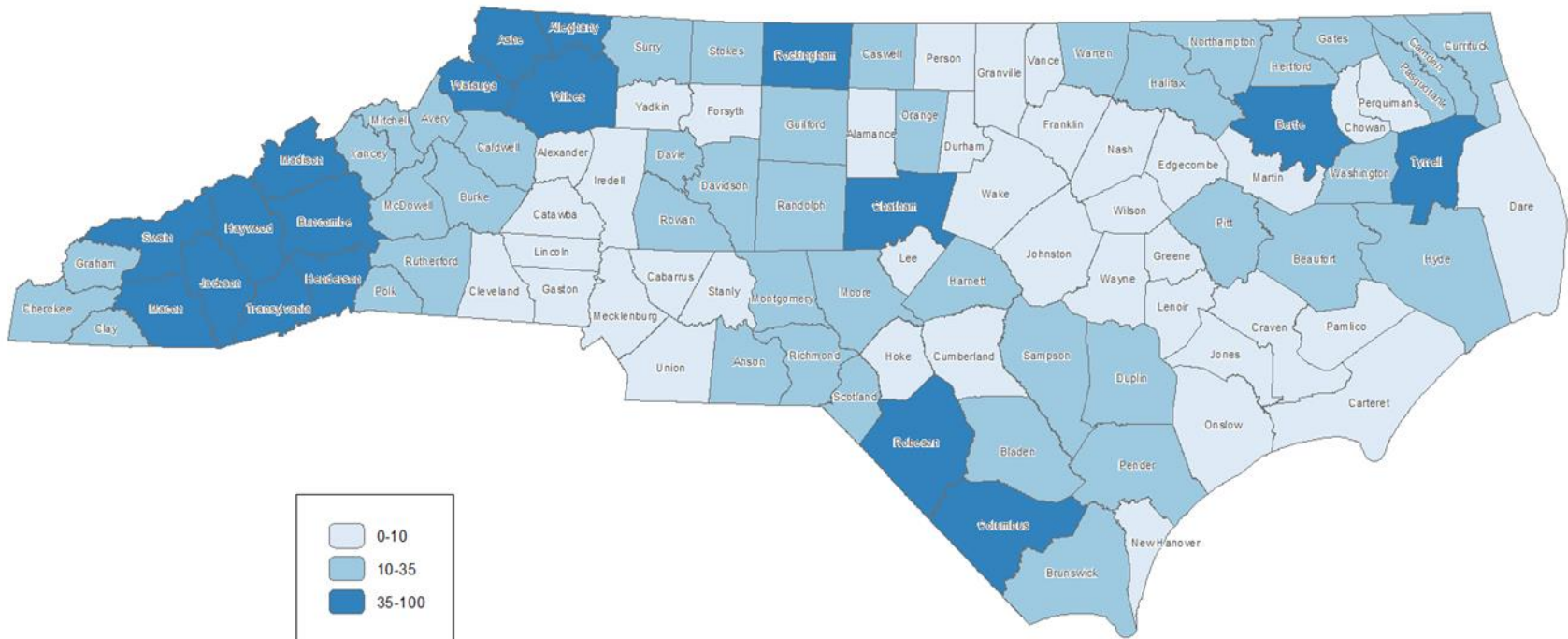
Remaining Mileage



Transportation Spending

Unpaved Roads: Hold List

Remaining Mileage



Private Roads

Comprehensive Survey Results

- 76,745 Roads with 17,717 Miles
 - 35,248 Paved (\$831 M = Good Condition)
 - 41,497 Unpaved
- 70% of private roads in poor condition
- 46% of private roads in subdivisions

	East	Central	West
% of Total	27%	30%	43%
% in Poor Condition	66%	57%	81%

Bridges

- 13,487 bridges
- 4,539 culverts
- 1,784 unfunded structurally deficient (SD)
 - 67 counties: unfunded SD bridges exceed 10%
 - 250 SD added each year
- 3,146 unfunded functionally obsolete (FO)
 - 91 counties: unfunded FO bridges exceed 10%
- \$242 M in HF; \$90 M in HTF



SD Bridge Funding

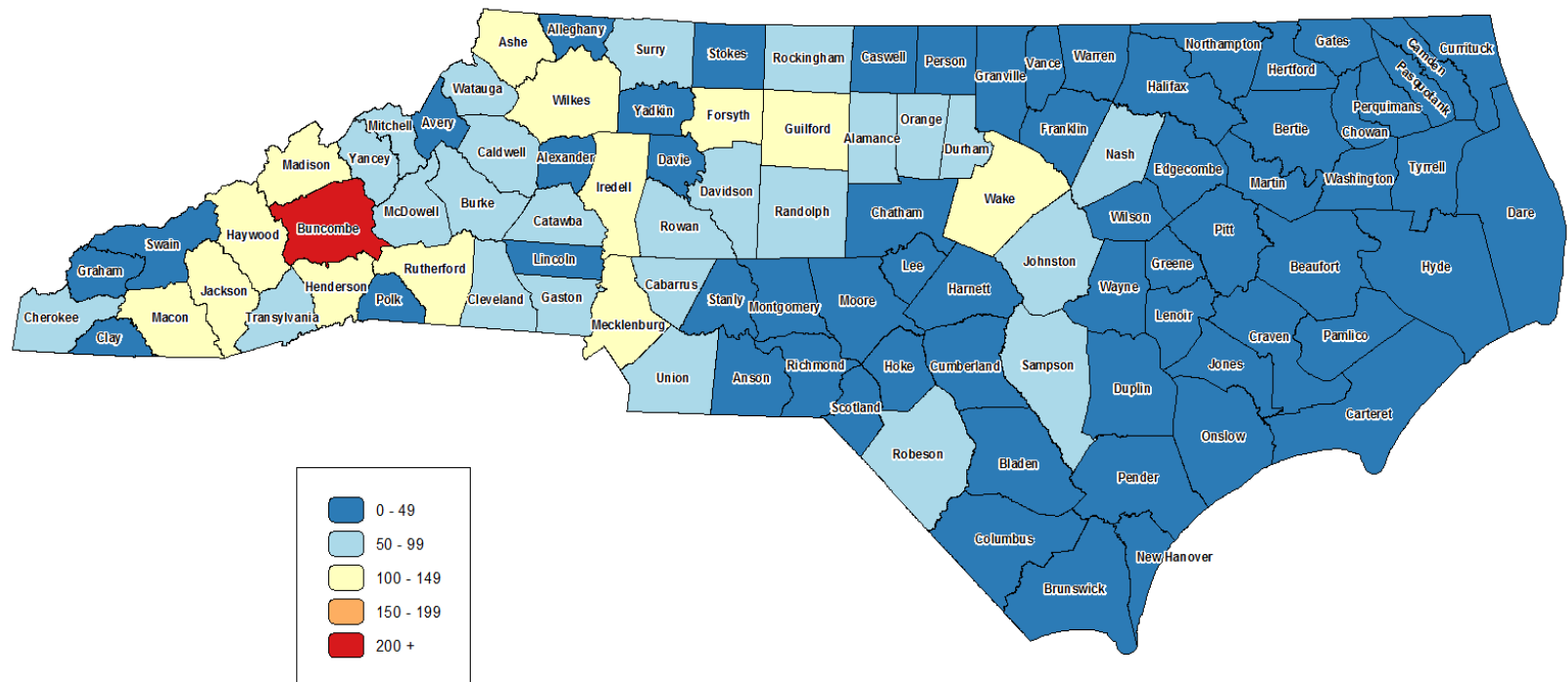
Maintain Status Quo (16%) =
\$40 million more

10% Goal
in 15
years:
Add \$90m

10% Goal
in 10
years: Add
\$115m

10% Goal
in 7 years:
Add
\$165m

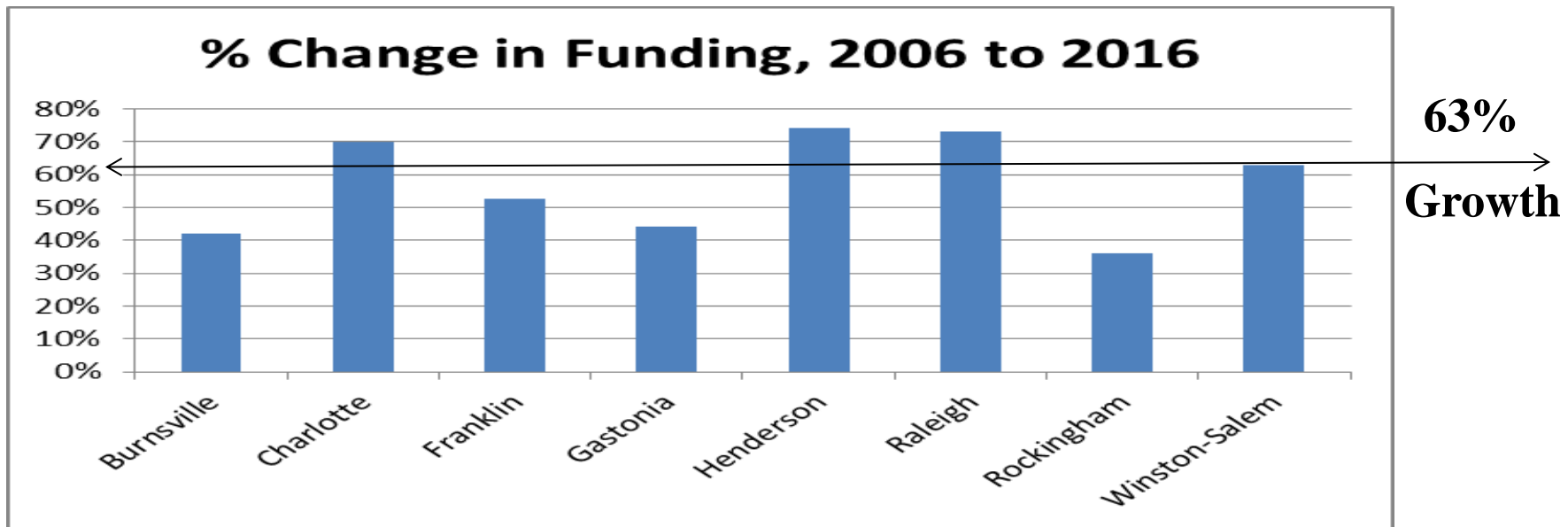
Deficient Bridges (2017)



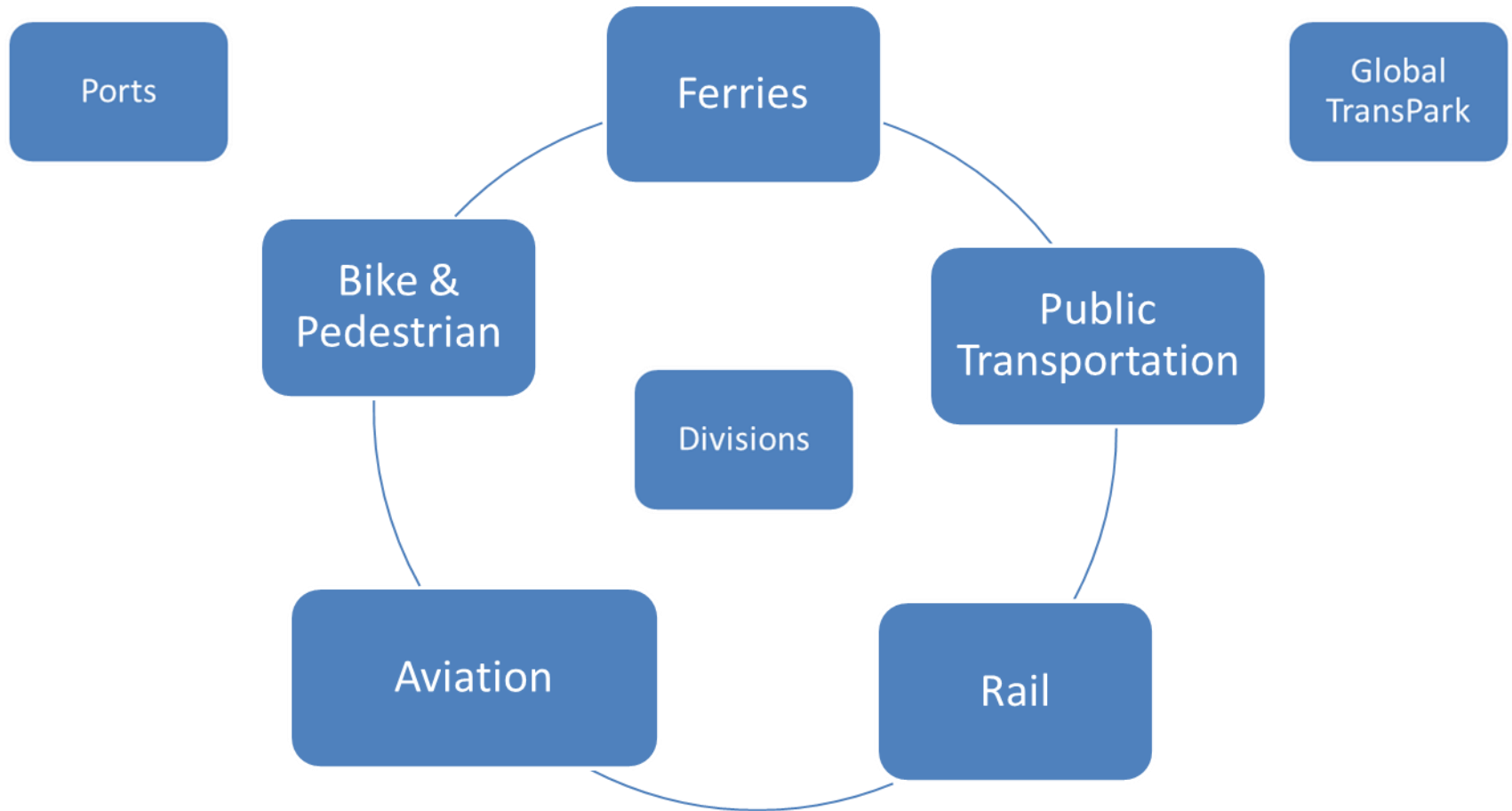
Transportation Spending: Aid to Municipalities (Powell Bill)

- 75% Population/25% Mileage
- Appropriation: \$147.5 million
- New: Expenditure Report

	2006	2016
Per capita	\$ 22.63	\$ 20.03
Per mile	\$ 1,685	\$ 1,622

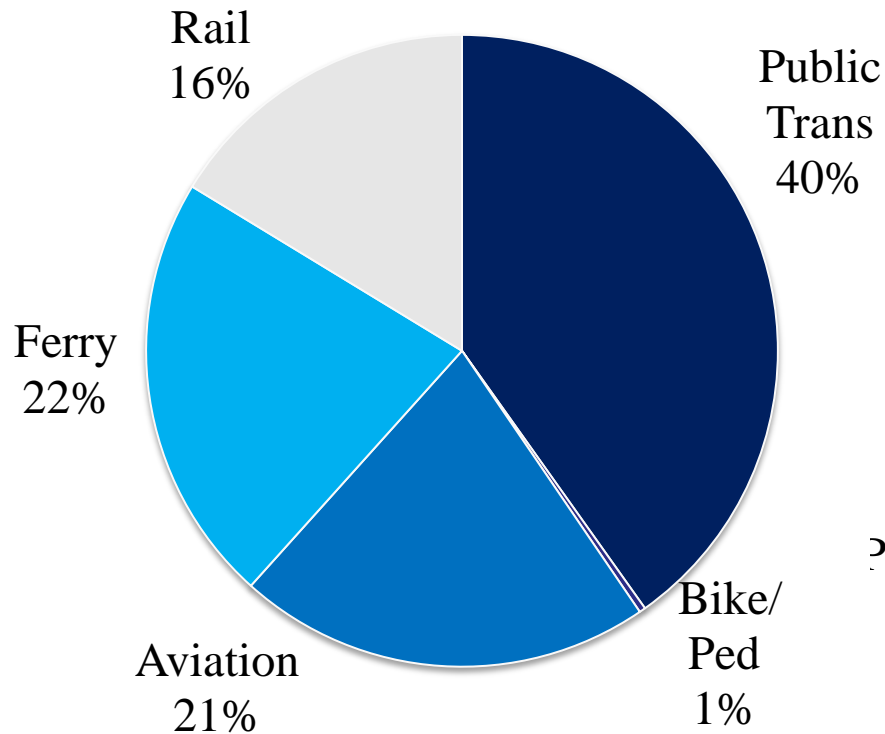


Transportation Spending: (Highway Fund) Intermodal



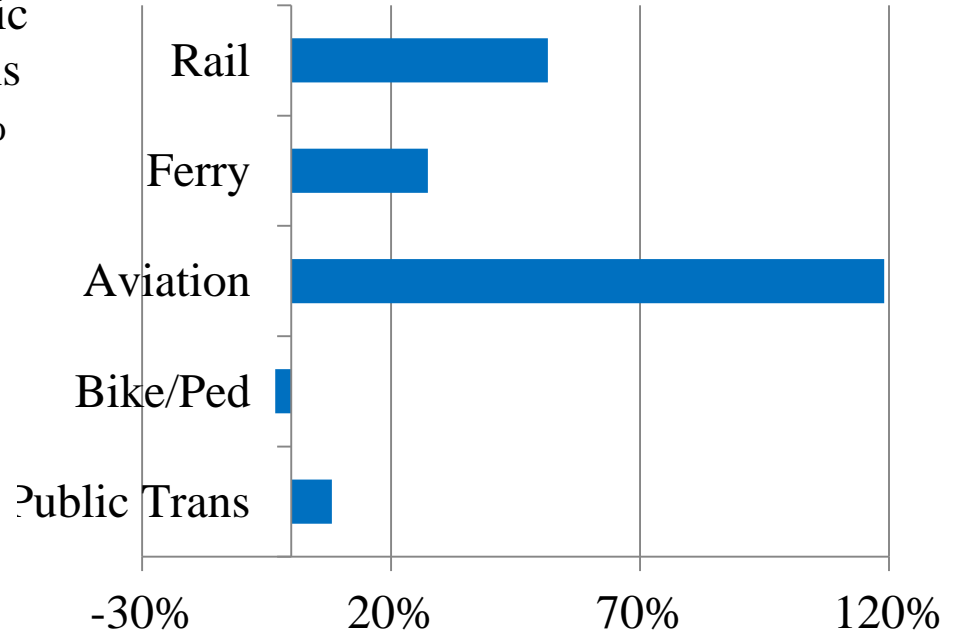
Transportation Spending: (Highway Fund) Intermodal

FY 2016-17 Budget



\$229.5 million

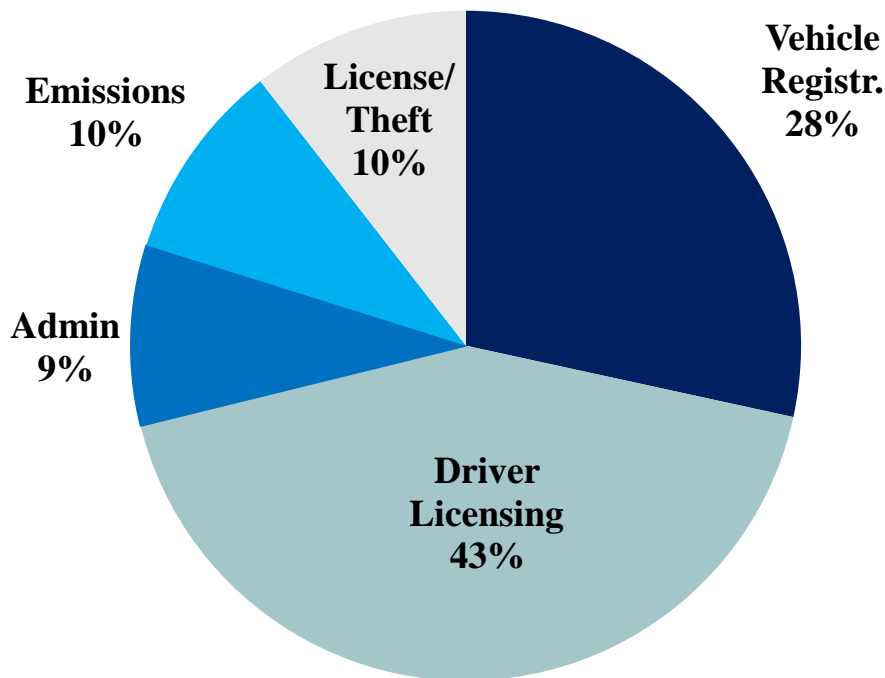
**% Budget Growth in
2015-17 Biennium**



\$57 million added

Transportation Spending: (Highway Fund) DMV

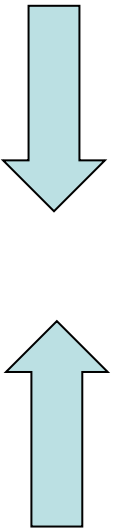
FY 2016-17 Budget



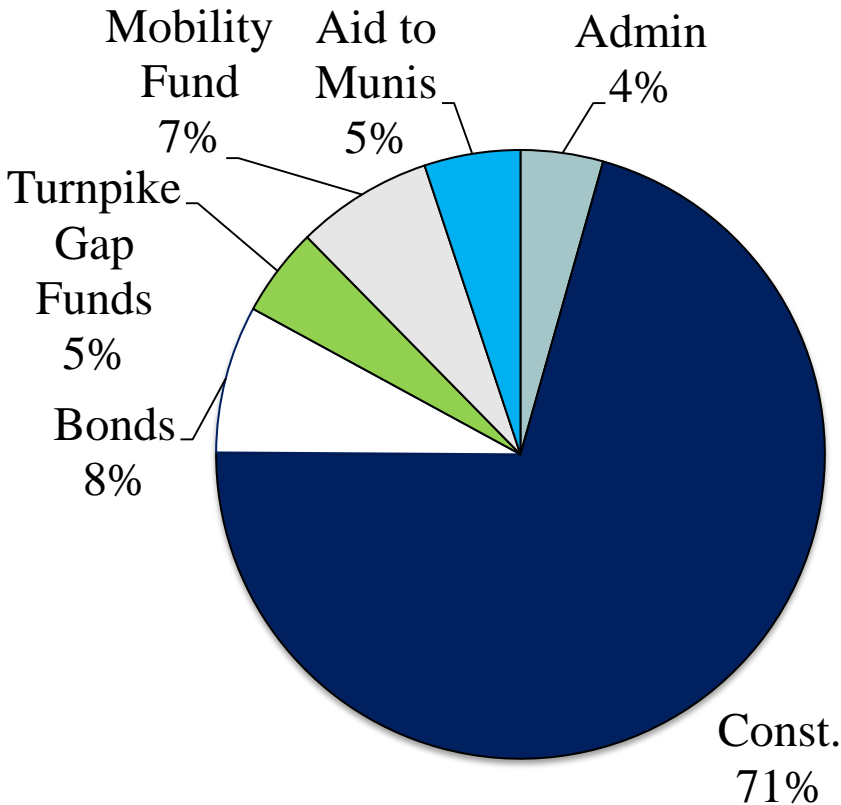
\$125.3 million

Customer Service

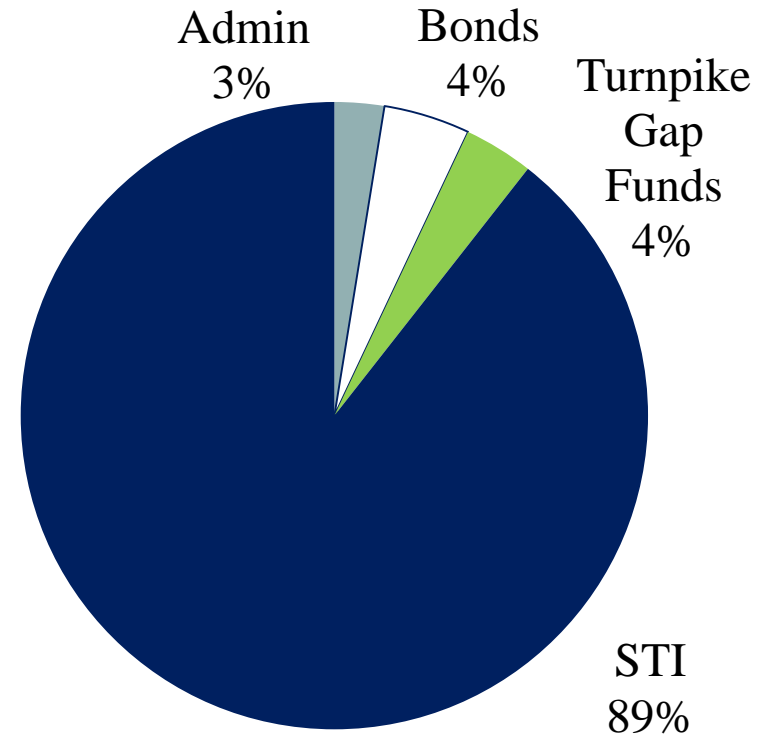
- Wait times
- Online services
- Convenience
 - Kiosks
 - Mobile Units



Transportation Spending: Highway Trust Fund



FY 2013: \$1.07 billion



FY 2017: \$1.37 billion

Data Driven Project Selection

(STI)

Strategic
Transportation
Investments Act
(STI)
S.L. 2013-183
Eliminated
Equity Formula

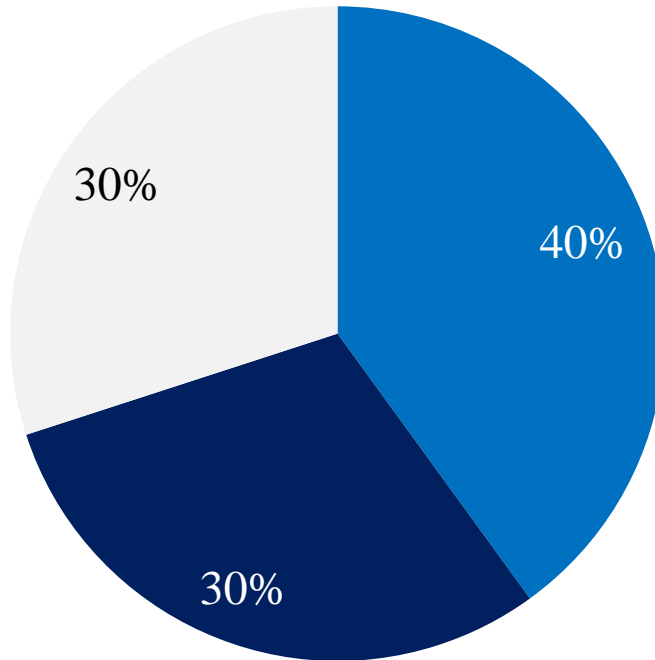
Prioritization Office

Convene Workgroup
for Prioritization 3.0 to
Develop Methodology
Locals Submit Projects
DOT Assigns
Quantitative Scores
MPO/RPO/Division
Engineers Assign
Local Input Scores

STIP

State Transportation
Improvement Program (STIP)
Required by Federal Law
5-year “Delivery STIP”
10-year plan
STI/P3.0 used to fully develop
2016-2025 STIP
P4.0 will develop portions of
2018-2027 STIP

STI



- Statewide Strategic Mobility Projects - 40%
- Regional Impact Projects - 30%
- Division Needs Projects - 30%

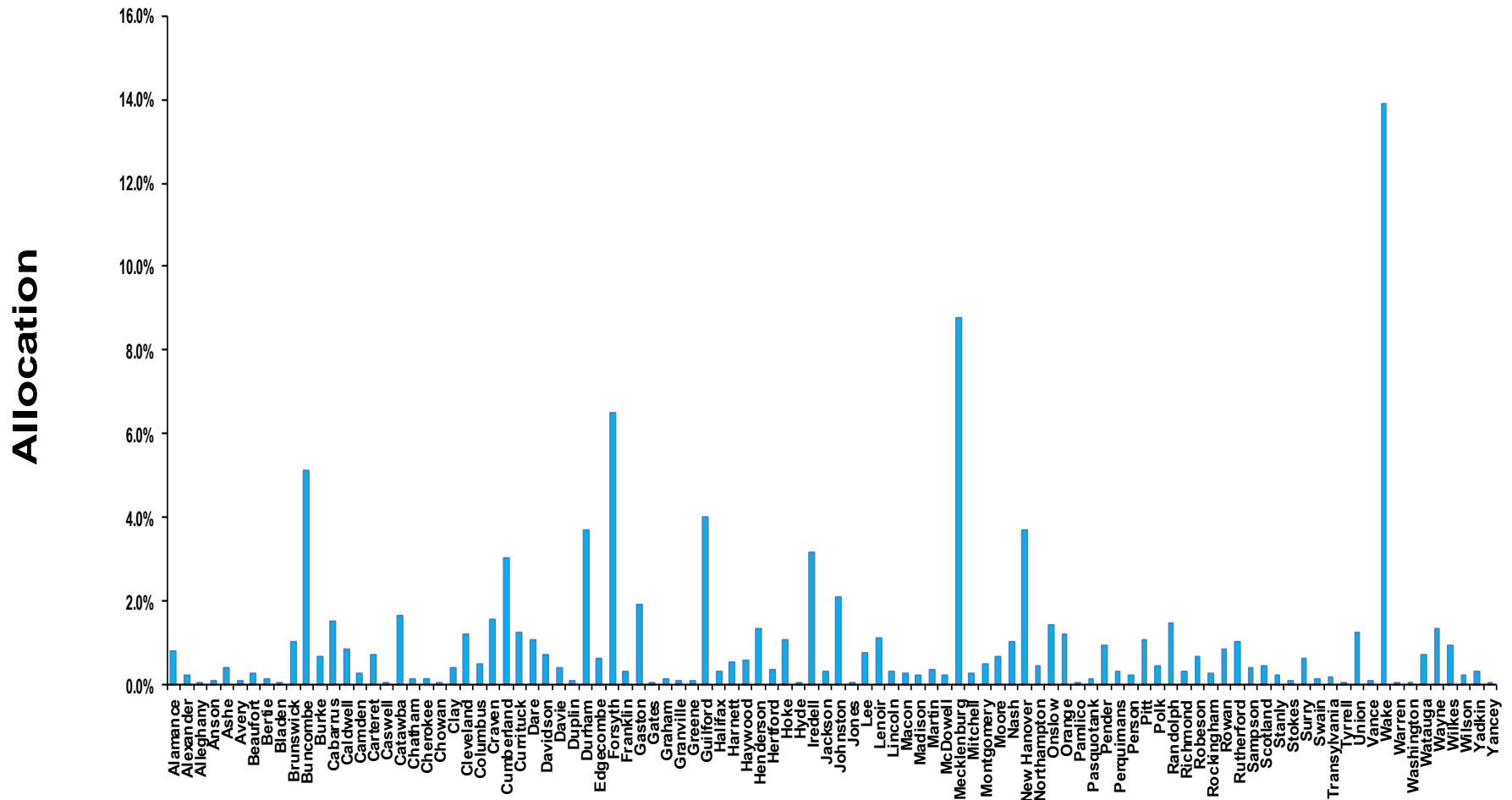
Where Does \$32 Million Go?

Statewide	Regional	Division
\$12,800,000	\$9,600,000	\$9,600,000

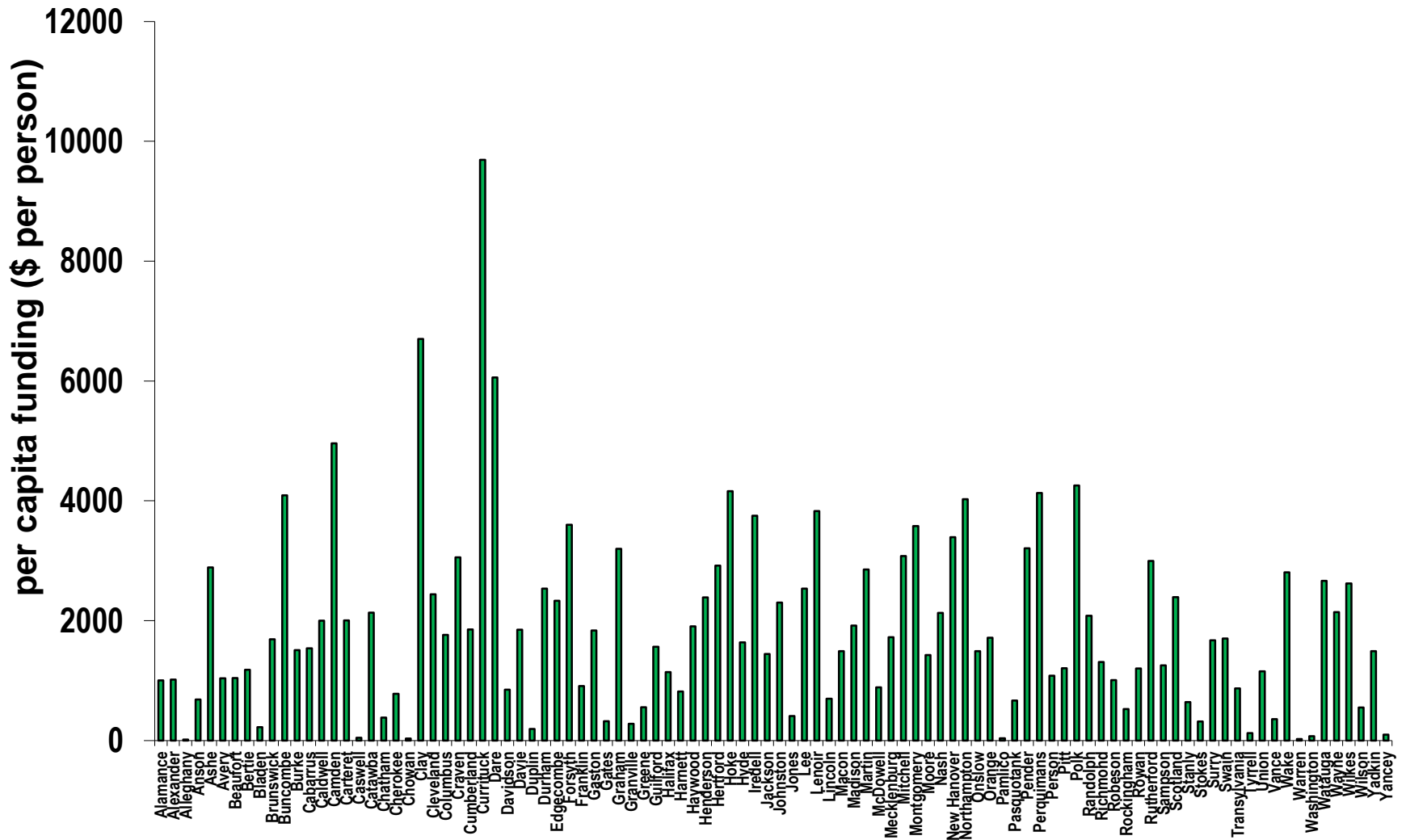
Draft 2018-2027 STIP (P4.0)

- Prioritization 4.0 Database includes 1,929 projects costing \$56.6 B
- Programming removes projects from prior STIP to be rescored through Prioritization process
- STIP: 1,421 projects (532 Projects from P4.0)
 - 79% highway/21% non-highway
 - 31% programmed through Alternate Criteria
- 75% of the funds are distributed within MPO boundaries; 25% in RPO
 - Applies to Highways and to All Projects Combined

Draft STIP Funding Distribution

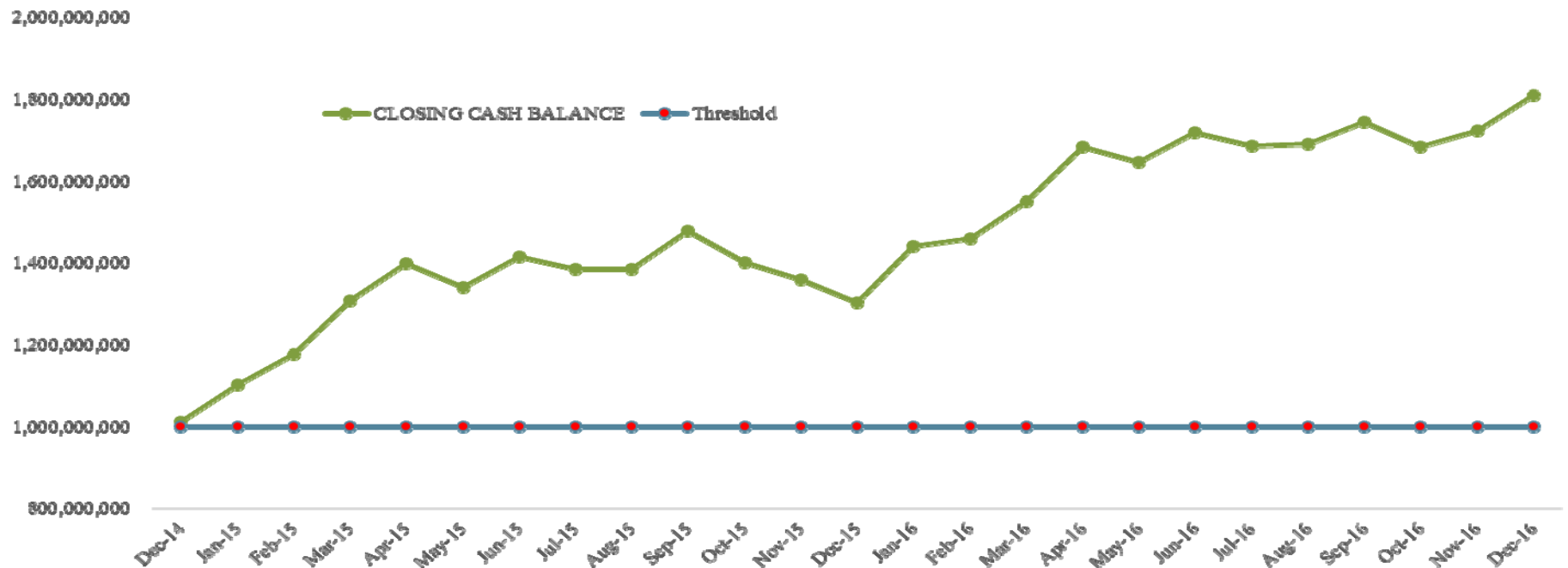


Draft STIP Per Capita Distributions

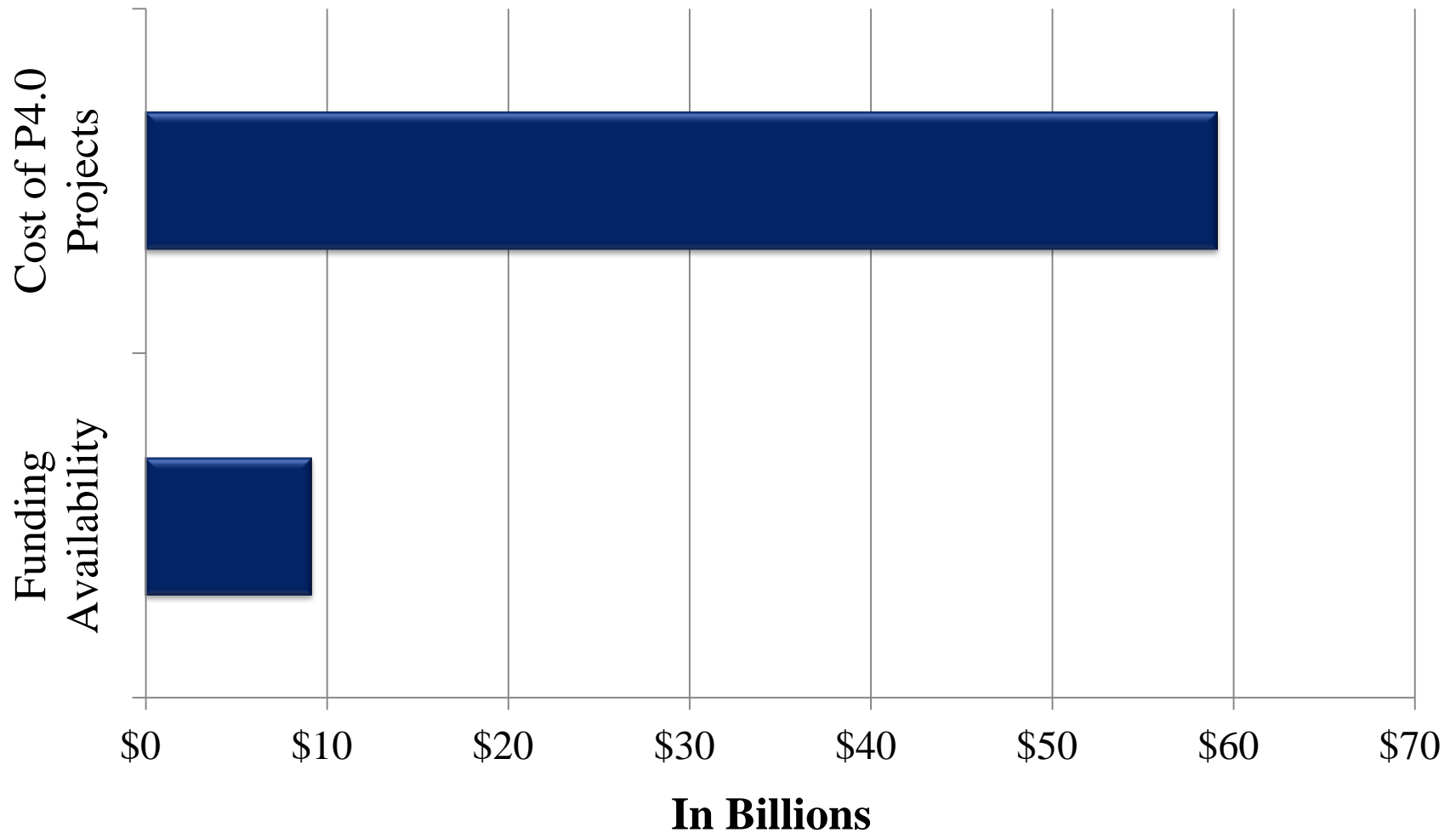


Issues for Consideration

- Project Delivery
- Cash Balance
- New Bond?
- Storm Preparation
- New Federal Funds?
- Additional Tolling? P3s?
- Improved Connectivity
- Corridor Protection

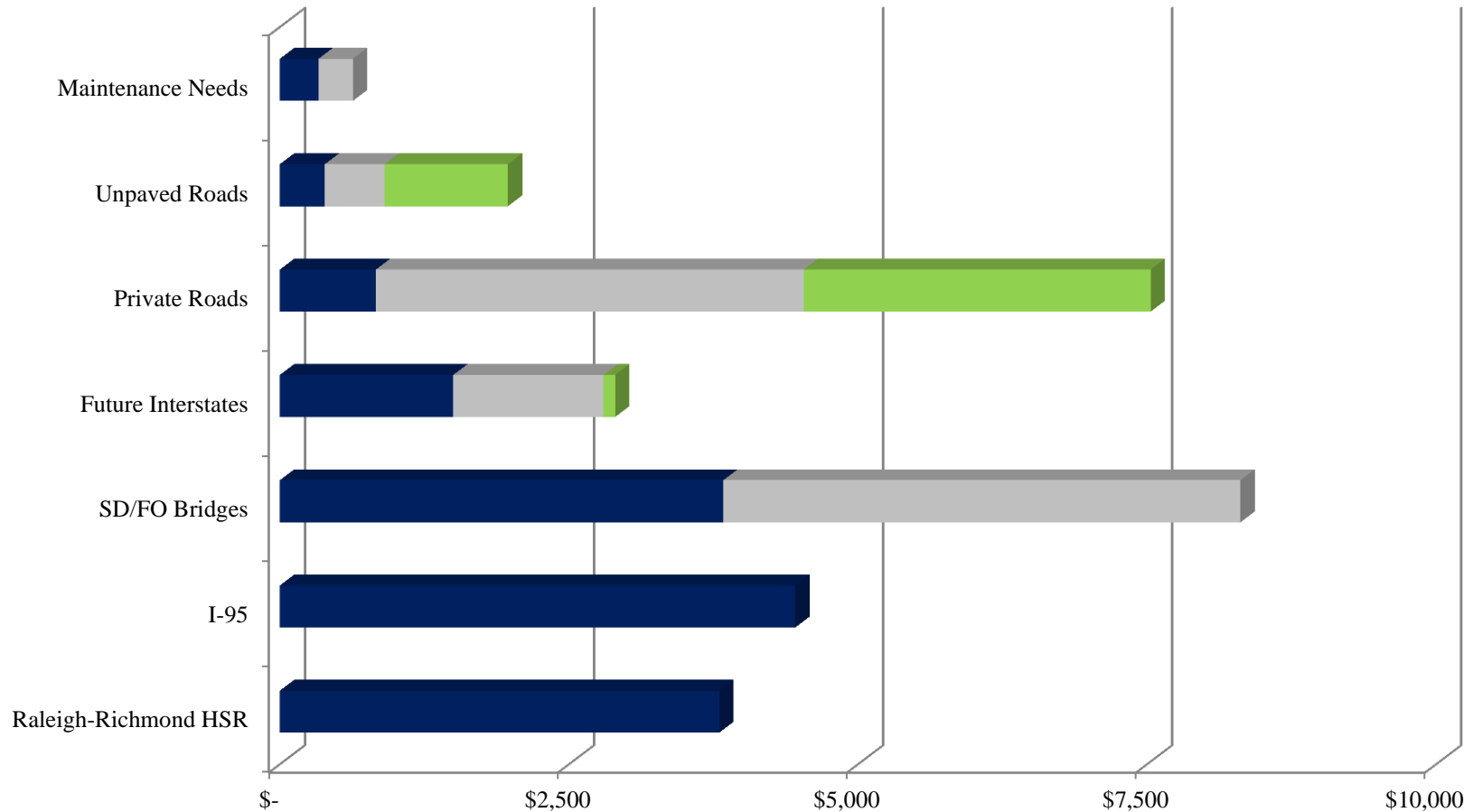


Is STIP Funding Sufficient?



Is DOT Funding Sufficient?

Cost to Improve (in Millions)



Transportation Spending: Considerations

- What are your transportation funding priorities?
- How much revenue do you need to fund them?
- What options exist to raise revenues?
- Is spending flowing to the areas with the greatest needs?

Summary

- North Carolina has a large, centralized highway system with state, not county, responsibility for secondary roads.
- The condition of the state's roads will deteriorate without additional funding for maintenance and preservation.
- Expected population growth will put additional demands on new construction.